

XLIX.—*Rhynchotal Notes*.—XLII. By W. L. DISTANT.

Fam. Fulgoridæ (continued from p. 295).

Subfam. DERBINÆ.

During the preparation of these pages my attention was drawn to a 'Report of Work of the Experiment Station of the Hawaiian Sugar Planters' Association,' Bull. No. 1, pt. 9 (Honolulu, 1906). This part is entitled "Leaf-Hoppers and their Natural Enemies," by G. W. Kirkaldy, but in fact consists very largely, if not principally, of descriptions of Australian species of Fulgoridæ, with some figures and many indications of new genera. It is singular that, as most of the species described in this fugitive report are from Queensland, there should be so little identity with the species of Derbinæ from the same locality described in this paper. I have, however, carefully studied Kirkaldy's indications of his new genera: those he has figured cause little difficulty; but those without illustration are quite different, as in most instances he has scarcely referred to the tegmina and wings, so important in this subfamily, and thus his publication is left in a rudimentary condition. The figures here given will, however, prevent further confusion, and if any synonymy is found to exist, which I doubt, it may induce Mr. Kirkaldy in future to amplify his generic indications.

Genus DERBE.

Derbe, Fabr. Syst. Rhynch. p. 80 (1803).Type, *D. hæmorrhoidalis*, Fabr.*Derbe longitudinalis*, sp. n.

Body pale brownish ochraceous, above with a broad central longitudinal piceous fascia occupying the whole of vertex of head and continued to apex of abdomen; face and clypens fuscous brown; body beneath and legs pale ochraceous; abdomen above with the lateral margins and apex fuscous brown; tegmina and wings pale luteous, the veins fuscous brown, on basal half of tegmen there are also some intermediate longitudinal fuscous-brown streaks, of which the most prominent are in the subcostal, radial, and claval areas; face concave, with a central incised line, the lateral margins strongly ridged; clypens centrally and laterally carinate; mesonotum tricarinate; pronotum centrally carinate; scutellum strongly and broadly centrally sulcate.

Long., excl. tegm., $7\frac{1}{2}$ mm.; exp. tegm. 26 to 28 mm.

Hab. Bolivia (*J. Steinbach*, Brit. Mus.); Ecuador; Cachabé (*Rosenberg*, Brit. Mus.).

In the smaller and varietal specimen from Ecuador the subapical area to the tegmina and the apex of the wings are also fuscous brown.

Genus *MYSIDIA*.

Mysidia, Westw. Trans. Linn. Soc. xix. p. 5 (1842).

Type, *M. pallida*, Fabr.

Mysidia nebulosa.

Derbe nebulosa, Germ. in Thon, Ent. Arch. ii. 2, p. 56 (1830).

Mysidia nebulosa, Walk. List Hom., Suppl. p. 97 (1858).

Walker (*supra*), evidently with a right determination, described this species as new. Fowler (Biol. Centr.-Am., Rhynch. Hom. ii, p. 73) has followed Walker.

Mysidia Steinbachi, sp. n.

Body and legs pale stramineous; tegmina and wings creamy white, subhyaline, the first with a fuscous spot extending from costa at about one third from base across radial area, between this spot and apex is another very pale brownish transverse costal spot not reaching middle of tegmen, some of the discal transverse veins also of the same colour; wings with a pale fuscous costal spot at about one third from base which crosses radial area, the discal transverse vein pale brownish; face narrow, broadened towards clypeus, lateral margins strongly ridged; clypeus not or very obsoletely carinate.

Long., excl. tegm. 3 mm.; exp. tegm. 17 mm.

Hab. Bolivia (*J. Steinbach*, Brit. Mus.).

From the description apparently allied to *M. puncta*, Fabr.

Mysidia jamaicensis, sp. n.

Body and legs very pale luteous; tegmina and wings pale creamy, semiopaque, the venation darker, two black spots above clavus, the smallest near its base, the largest near its apex, two black subapical spots, the uppermost smallest, two black dots in basal third of costal area, remaining costal area a little darker with pale spots; wings with a transverse series of three small irregular spots at about one third from base.

Long., excl. tegm., 3 mm.; exp. tegm. 13 mm.

Hab. Jamaica; Moneague (Cruise of 'Valhalla,' *M. J. Nicoll*, Brit. Mus.).

Mysidia glauca, sp. n.

Head and pronotum very pale brownish ochraceous; sternum with sanguineous markings; body beneath and legs very pale brownish, somewhat greyishly tomentose; abdomen above pale bluish; tegmina and wings pale bluish, in some lights with a bronzy tint; mesonotum distinctly tricarinate; face and clypeus centrally sanguineous, the lateral margins ridged.

Long., excl. tegm., 3 mm.; exp. tegm. 15 mm.

Hab. Lower Amazons; Parana de Buyassu (*E. E. Austen*, Brit. Mus.).

Genus PHENICE.

Phenice, Westw. Trans. Linn. Soc. xix. p. 10 (1842).

Type, *P. fritillaris*, Boh.

Phenice australis, sp. n.

Head and pronotum dark chocolate-brown, the carinations greyish white; metanotum and scutellum greyish white; abdomen above black, with a central longitudinal greyish-white ridge; head and sternum beneath dark chocolate-brown; abdomen beneath black; legs stramineous; tegmina black, a large claval spot extending upward, but not reaching radial vein, a large irregular spot beyond middle extending from radial vein to inner margin, a series of spots to costal area, becoming duplicated near apex, and apical marginal spots greyish white, in the large pale spot beyond middle, but *not* in the claval spot, the veins are black; wings piceous brown, posterior margin broadly greyish white divided by piceous veins.

Long., excl. tegm., 3 mm.; exp. tegm. 17 mm.

Hab. Queensland (*P. P. Dodd*, Brit. Mus.).

Allied to the Indian species *P. mæsta*, Westw.

ARFAKA, gen. nov.

Head (including eyes) very much narrower than pronotum; vertex narrow, triangular, widened posteriorly, distinctly produced in front of eyes, centrally longitudinally deflected; face laterally compressed, convex, centrally very narrow, linear, a little widened anteriorly, centrally longitudinally

narrowly sulcate; clypeus about as long as face, tricarinate; antennae inserted beneath eyes, second joint moderately long and incrassate; pronotum short and strongly laterally emarginate posteriorly, strongly centrally carinate; mesonotum long, tricarinate, anteriorly somewhat strongly narrowed; legs moderately long and slender, posterior tarsi with the basal joint long and moderately thickened; tegmina broadened before middle, a little convexly narrowed to apex, which is truncate, costal area with five transverse veins, upper apical area with four large cells, radial area with a transverse vein near middle, and a broken series of discal transverse veins in longitudinal sequence; wings narrow, less than half the length of tegmina, a transverse vein before middle.

Allied to *Pamendanga*, Dist., but differing by the narrow face, longer clypeus, different shape of the mesonotum, &c.

Type, *A. decisa*, Dist.

Arjaka decisa, sp. n.

decisa, Walker, MS.

Body and legs stramineous; vertex of head, pronotum, and carinations and posterior margin to mesonotum, greyish white; on each side of pronotum, behind eyes, a testaceous spot; eyes brownish testaceous; apices of the tarsi black; tegmina and wings pale hyaline, with the venation prominent and black.

Long., excl. tegm., 4 mm.; exp. tegm. 16 mm.

Hab. New Guinea (*Wallace*, Brit. Mus.).

A specimen of this species in the British Museum is labelled *decisa* in Walker's handwriting, but I cannot trace any publication of a description.

SIKAIANA, gen. nov.

Head (including eyes) very much narrower than pronotum; vertex narrow, triangular, widened posteriorly, its apex a little prominent; face extremely narrow and linear, appearing as a line only between the eyes; clypeus about half the length of face, centrally and laterally carinate; antennae inserted beneath eyes, very robust, second joint longer than third; pronotum short, very broadly transverse, very strongly centrally carinate; mesonotum tricarinate; legs moderately long and slender; tegmina broadened towards middle, a little convexly narrowed to apex which is rounded, costal membrane with some indistinct transverse veins, radial area short, discoidal areas four, apical areas six, a series of transverse veins

round apical margin; wings much less than half the length of tegmina, discoidal areas long and narrow, a transverse vein near middle of anal area; apical areas four.

Allied to *Pamendanga*, Dist.

Type, *S. hyalinata*, Dist.

By the shape of the pronotum this genus seems to be allied to *Basileocephalus*, Kirk., but the antennae are not "short" as described in that genus, nor are the lateral areas of the pronotum "foliaceous, recurved, practically enclosing the antennae." The only reference to the tegmina and wings given by Kirkaldy is that the first are "elongate, narrow," and the second are not mentioned. It is therefore impossible to locate the position of *Basileocephalus* in the Derbinae.

Sikaiana hyalinata, sp. n.

Body and legs very pale tawny yellow, slightly greyishly tomentose; eyes black; tegmina and wings pale hyaline, the venation darker or more ochraceous; tegmina with some pale sanguineous spots on costal area, becoming more numerous

Fig. 1.



Sikaiana hyalinata, Dist.

near apex, inner and apical margins a little clouded with pale fuscous; wings with the apical veins and the transverse vein on anal area very slightly and palely fuscous.

Long., excl. tegm., 2 mm.; exp. tegm. $11\frac{1}{2}$ mm.

Hab. Queensland (F. P. Dodd, Brit. Mus.).

Sikaiana maculosa, sp. n.

Head with the margins of vertex greyish white, the eyes dark castaneous; pronotum very pale tawny; mesonotum pale tawny brown, the carinations greyish; abdomen above

and beneath ochraceous, with some castaneous suffusions, especially on the lateral areas; sternum and legs stramineous; tegmina and wings pale hyaline with some opaline reflections; tegmina with the base narrowly pale ochraceous, terminating in a subbasal fuscous spot on costal area, a somewhat large fuscous spot before apex of costal area, another near apex, a series of smaller fuscous spots on apical margin, and a still smaller spot on upper vein of radial area; wings with some subapical marginal spots; antennæ robust, ochraceous, third joint infusate.

Long., excl. tegm., 2 mm.; exp. 10 mm.

Hab. Queensland (*F. P. Dodd*, Brit. Mus.).

Genus ZORAIDA.

Thracia, Westw. Trans. Linn. Soc. xix. p. 10 (1842), nom. præocc.

Zoraida, Kirk. Entomologist, 1900, p. 242, n. nom.

Type, *Z. sinuosa*, Westw.

Zoraida nivifera.

Thracia nivifera, Walk. Journ. Linn. Soc., Zool. x. p. 137 (1867).

Thracia abrupta, Walk. loc. cit.

Hab. Batchian, Gilolo.

Zoraida costalis.

Thracia costalis, Walk. Journ. Linn. Soc., Zool. x. p. 136 (1867).

Thracia dorsalis, Walk. loc. cit. p. 137.

Hab. Batchian, New Guinea.

Zoraida scutellaris.

Thracia scutellaris, Walk. Journ. Linn. Soc., Zool. x. p. 135 (1867).

Thracia anticalis, Walk. loc. cit. p. 136.

Thracia sexnotata, Walk. loc. cit. p. 139.

Hab. Morty, Mysol, Aru.

Zoraida Walkeri, n. nom.

Thracia nervosa, Walk. Journ. Linn. Soc., Zool. x. p. 135 (1867), nom. præocc.

Hab. Mysol, New Guinea.

Zoraida borneensis, sp. n.

Head, pronotum, mesonotum, body beneath, and legs stramineous; abdomen above brownish ochraceous, it and

the scutellum more or less cretaceously sericeous; tegmina hyaline, basal third suffused with ochraceous, the costal area creamy white containing a few brown spots, the subcostal area beyond middle is mostly black, with the veins defining it sanguineous, and beneath the lower vein the black is continued in some prominent angulations, inner and apical margin with small piceous spots at the apices of the veins, the apex has also a subapical transverse line of small spots, most of the transverse veins fuscous; mesonotum prominently tricarinate, the central carination continued through pronotum; clypeus centrally and laterally carinate.

Long., excl. tegm., 5 to $5\frac{1}{2}$ mm.; exp. tegm. 23 mm.

Hab. Borneo; Sandakan (W. B. Pryer, Brit. Mus.).

Zoraida erythractis, sp. n.

Body and legs dark ochraceous; vertex of head, lateral margins of pro- and mesonota, abdominal anal segment, longitudinal streaks to femora and sternum, and abdomen beneath sanguineous; tegmina hyaline, crossed by three broad pale fuscous fasciæ, the first about one third from base, the second just beyond middle, and the third at apex; in these dark fasciæ the veins are red, remaining venation yellowish; costal area yellowish, reddish from base to first dark fascia and from second dark fascia to apex; wings hyaline, with the venation darker; second joint of antennæ reddish, longer than head and pronotum together; mesonotum distinctly tricarinate, the central carination continued through the pronotum.

Long., excl. tegm., 5 mm.; exp. tegm. 25 mm.

Hab. Borneo; Kuching.

Zoraida cycnoptera, sp. n.

Pronotum, mesonotum, scutellum, body beneath, and legs stramineous; abdomen above, posterior disk of pronotum, vertex of head, face, and clypeus testaceous; tegmina hyaline, the venation fuscous, costal area for about one third from base fuscous brown, with creamy-white spots, remaining area ochraceous, with a prominent black spot before apex, costal and subcostal veins testaceous red, upper apical area piceous, apical margin and extremities of apical veins testaceous red in ♂, in ♀ the two central extremities stramineous; wings hyaline, the venation fuscous; mesonotum tricarinate, the central carination continued through pronotum; clypeus centrally and laterally carinate.

Long., excl. tegm., ♂ $4\frac{1}{2}$, ♀ 6 mm.; exp. tegm., ♂ 21, ♀ 30 mm.

Hab. Queensland (*F. P. Dodd*, Brit. Mus.).

Allied to *Z. Essingtoni*, Westw.

Zoraida eupæcila, sp. n.

Head, antennæ, pronotum, mesonotum, scutellum, and abdomen tawny brown; sternum and legs stramineous; carinations to pronotum and mesonotum distinctly paler and pale ochraceous in hue; eyes black; tegmina very pale fuliginous, subhyaline, infuscated on basal area, where there is a distinct white spot beneath radial area, veins fuscous, costal area greyish white, with an elongate fuscous spot near middle and another nearer apical area; beneath the costal area the colour is narrowly fuscous, broken with a large creamy-white spot just before the second dark spot in costal area, costal margin at apex testaceous, and the apical margin creamy white, before the latter a transverse series of four small fuscous spots placed on the veins, a large fuscous spot at end of clavus; wings very pale fuliginous, with the veins fuscous; second joint of antennæ robust, as long as head and thorax together.

Long., excl. tegm., 5 mm.; exp. tegm. 22 mm.

Hab. Queensland; Kuranda (*F. P. Dodd*, Brit. Mus.).

Zoraida consanguinea, sp. n.

Allied to *Z. eupæcila*, and differing principally by the tegmina, which are very much more broadly and regularly fuscous beneath the costal area, the latter creamy white, with three elongate fuscous spots on basal third, subapical transverse spots obsolete, veins to discoidal areas more transversely and less longitudinally oblique.

Long., excl. tegm., 4 mm.; exp. tegm. 18–23 mm.

Hab. Queensland (*F. P. Dodd*, Brit. Mus.).

Zoraida cydista, sp. n.

Head (including eyes) ferruginous brown; thorax above stramineous, mesonotum a little transversely piceous near base; scutellum cretaceously white; abdomen above testaceous, basal half of disk cretaceously white; body beneath and legs stramineous; tegmina hyaline, venation fuscous; costa, costal and subcostal veins purplish red, beyond middle the spaces between these veins are piceous; beneath and attached to the lower red veins some piceous spots, of which

the most prominent are one about middle and another nearer apex, apical margin between the veins piceous; wings hyaline, the venation fuscous; antennæ with the second joint stramineous, its apex ochraceous, as long as head and thorax together; mesonotum distinctly tricarinate, the carinations very slightly paler.

Long., excl. tegm., 3 mm.; exp. tegm. 19–21 mm.

Hab. Queensland (F. P. Dodd, Brit. Mus.).

Zoraida picta, sp. n.

Above and beneath pale ochraceous; eyes black; pronotum stramineous; abdomen above with angulate fasciate sanguineous markings and with a curved black discal line on each side a little beyond middle; tegmina hyaline, the veins fuscous, costal area pale testaceous, an oblique black spot in subcostal area at about two thirds from base and a black spot at its apex, the veins emanating from the subcostal vein black at their bases; mesonotum faintly tricarinate; second joint of antennæ minutely black-speckled, with its apex darker ochraceous, as long as head and thorax together.

Long., excl. tegm., $4\frac{1}{2}$ mm.; exp. tegm. 21 mm.

Hab. Queensland (F. P. Dodd, Brit. Mus.).

Genus DRONA.

Drona, Dist. Faun. B. I., Rhynch. iii. p. 305 (1906).

Type, *D. carnosa*, Westw.

In describing this genus, founded on the type of Westwood's *carnosa* contained in the British Museum, and a somewhat antique specimen, I could not see any carinations to the mesonotum, nor could the artist who drew the figure. Since then I have been able to examine specimens in better condition, and the mesonotum must be described as tricarinate, even if in some examples faintly so. The male anal armature is a very prominent character.

Drona lanius.

Derbe lanius, Stål, Öfv. Vet.-Ak. Förh. 1855, p. 94.

Thracia lanius, Stål, Hem. Afr. iv. p. 195 (1866).

Hab. Caffraria.

Drona apicalis.

Thracia apiculis, Hagl. Öfv. Vet.-Ak. Förh. 1899, p. 64.

Hab. Congo.

Drona Grahani, sp. n.

Body and legs testaceous red; tegmina subhyaline, slightly fuliginous, veins a little darker, costal margin and subcostal vein piceous; costal area and stigma flavescent; wings flavescent, posterior margin broadly piceous, a somewhat large spot near middle of anterior margin black; male with three long anal appendages, the uppermost deflected from near base and directed downwards, its apex acute, the two lowermost directed strongly outwards and then as strongly directed inwardly and downward; mesonotum tricarinate.

Long., excl. tegm., 3 mm.; exp. tegm. 16 mm.

Hab. Ashanti; Obuasi (W. M. Graham, Brit. Mus.).

Drona biclavata.

Derbe (*Phenice*?) *biclavata*, Westw. Ann. & Mag. Nat. Hist. (2) vii. p. 209 (1851).

Hab. Congo.

A remnant of the type of this species is in the British Museum collection, which, with the description given by Westwood, leaves no reasonable doubt that it should be included in the genus *Drona*.

CAMMA, gen. nov.

Vertex of head projecting a little in front of eyes, a little narrowed anteriorly, the margins strongly ridged, the anterior margin notched; face elongate, widest at base, margins strongly ridged, downwardly recurved, shorter than clypeus; antennæ inserted beneath eyes, second joint moderately long and globose; pronotum narrow, its posterior margin strongly concavely sinuate, centrally longitudinally carinate; mesonotum tricarinate, the lateral carinations sinuate, the central carination straight; legs simple; tegmina about three times as long as broad, somewhat narrow at base, the costal area strongly convexly amplified to about one third from base, radial area very long, crossed near middle by a transverse vein, a central longitudinal series of transverse veins defining a series of discoidal areas, apical areas short, four in number; wings little more than one third the length of tegmina, narrow, apically widened.

Type, *C. dilatata*, Westw.

Camma dilatata.

Derbe (*Phenice*?) *dilatata*, Westw. Ann. & Mag. Nat. Hist. (2) vii. p. 209 (1851).

Hab. Sierra Leone (type in Brit. Mus.).

Fig. 2.

*Camma dilatata*, Westw.Genus *VIVAHA*.

Vivaha, Dist. Faun. B. I., Rhynch. iii. p. 307 (1906).

Type, *V. facialis*, Dist.

Vivaha saniosa, sp. n.

Body and legs very pale stramineous; vertex (excluding margins), upper lateral sides of vertex and front of face, and a central longitudinal fascia to mesonotum and scutellum sanguineous; tegmina pale semihyaline, the venation pale stramineous, inner margin to a little beyond end of clavus and a spot above apex of clavus sanguineous, beyond the red inner margin the apical margin is ochraceous; wings pale hyaline; head produced in front of eyes into a broad flattened laminate process.

Long., excl. tegm., 4 mm.; exp. tegm. 16 mm.

Hab. Queensland (*F. P. Dodd*, Brit. Mus.).

Vivaha delicata.

Interamma delicata, Walk. Journ. Linn. Soc., Zool. x. p. 118, pl. iii. fig. 6 (1867).

Hab. New Guinea.

The *Interamma angusta*, Walk., may also belong to the genus *Vivaha*, but the unique typical specimen in the British Museum is without a head.

ARUNTA, gen. nov.

Vertex of head longly produced in front of eyes, broad, laterally sinuate, apically widened and centrally notched on anterior margin; antennæ inserted at some distance beneath eyes, second joint long and broad; head laterally broad and spatulate, very much compressed, face very long, attenuated centrally, marginally strongly ridged; clypens short, globose; pronotum moderately triangularly anteriorly produced, its posterior margin equally angularly sinuate; mesonotum tricarinate, apical joint of rostrum very short; legs slender; tegmina elongate, gradually broadening to apex, which is truncate, discoidal areas four, lowermost longest, second shortest and triangular; wings a little shorter than tegmina, but considerably broader, two subapical transverse veins, third apical area short, triangular.

Type, *A. rubrovenosa*, Dist.

Allied to *Phantasmatocera*, Kirk., from which it differs by the different shape and structure of the head, the longer antennæ, apically truncate tegmina, with short and less numerous apical areas. In his short generic indication Kirkaldy does not refer to the wings.

Arunta rubrovenosa, sp. n.

Head creamy white, margins of face as far as eyes black;

Fig. 3.

*Arunta rubrovenosa*, Dist.

face before eyes pale ochraceous; clypens and inner margin of eyes black; eyes and second joint of antennæ fuscous

brown; pronotum creamy white; mesonotum ochraceous, with a black fascia near each anterior lateral margin; tegmina creamy white, subhyaline, interior area from base to lower apical area pale fuscous, the discoidal longitudinal veins sanguineous, the transverse veins fuscous; wings pale creamy white, subhyaline.

Long., excl. tegm., $2\frac{1}{2}$ mm.; exp. tegm. 8 mm.

Hab. Queensland (*P. P. Dodd*, Brit. Mus.).

KURANDA, gen. nov.

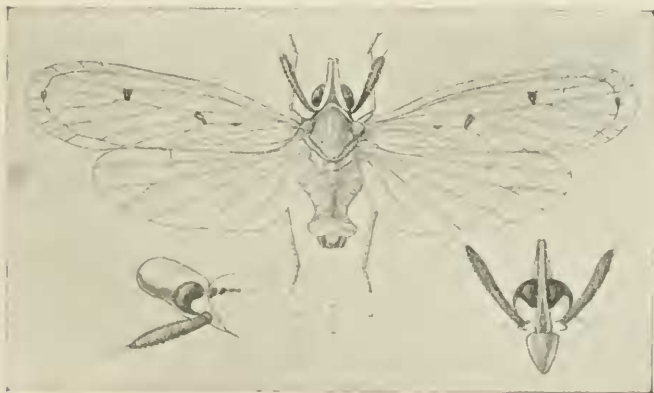
Vertex of head somewhat longly produced in front of eyes, narrowed anteriorly, lateral margins very strongly ridged; head laterally much compressed, face long and slender, slightly widened towards clypeus, which is very much shorter than face; antennæ inserted at some distance beneath eyes, the second joint very long and robust; pronotum very short; mesonotum subelongate, faintly carinate; tegmina more than three times longer than broad, apically rounded, apical areas short and continued round apex of costal margin, costal area moderately broad; wings broader and shorter than tegmina.

Type, *K. notata*, Dist.

Kuranda notata, sp. n.

Body and legs pale ochraceous, eyes and antennæ black; tegmina very pale creamy ochraceous, with four piceous spots,

Fig. 4.



Kuranda notata, Dist.

the smallest near base, two discal, and one near apical margin; wings pale hyaline.

Var.—Tegmina with an irregular piceous fascia extending from the basal spot to near apex of inner margin.

Long., excl. tegm., $3\frac{1}{2}$ mm. ; exp. tegm. 10 mm.

Hub. Queensland ; Kuranda (F. P. Dodd, Brit. Mus.).

MAKULA, gen. nov.

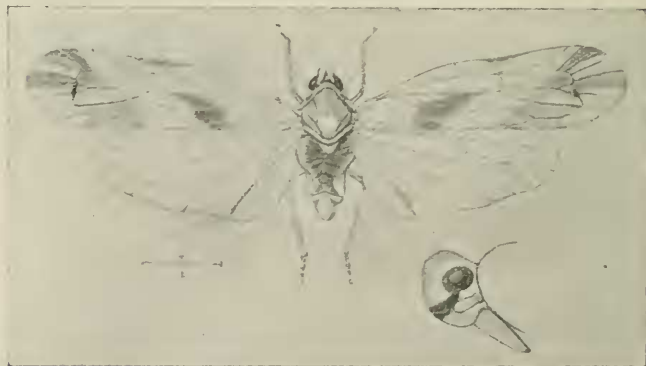
Vertex of head broad, moderately produced in front of eyes, triangularly foveate on disk, lateral areas of head broad, compressed, face narrow, curved downward, not continuous with the clypeus, which is very robust ; pronotum very narrow ; mesonotum elongate, tricarinate, the central carination straight and almost percurrent, the lateral carinations short and curved inwardly ; legs simple ; tegmina about three times as long as broad, costal margin sinuate, apex obtusely rounded, two series of transverse veins, the first a little beyond middle, and non-continuous, defining five discoidal areas, the second series more continuous, subapical, and enclosing the apical areas ; wings shorter and broader than the tegmina.

Type, *M. ornata*, Dist.

Makula ornata, sp. n.

Head, pronotum, scutellum, body beneath, and legs stramineous ; abdomen above fuscous, the lateral areas and apex

Fig. 5.



Makula ornata, Dist.

stramineous ; tegmina greyish white, subhyaline, a large oblique spot before middle, commencing near inner margin

and terminating at lower margin of radial area, a small streak on costal margin beyond middle, and a broken apical spot which is more faintly continued to inner margin, fuscous or piceous, on the area of these apical fuscous suffusions the veins are sanguineous; wings pale hyaline.

Long., excl. tegm., 2 mm.; exp. tegm. 10 mm.

Hab. Queensland (F. P. Dodd, Brit. Mus.).

Makula parviceps.

Brixia parviceps, Walk. Journ. Linn. Soc., Zool. x. p. 113 (1867).

Hab. Mysol.

Makula pictipennis.

Brixia pictipennis, Walk. Journ. Linn. Soc., Zool. x. p. 113 (1867).

Hab. Morty.

Makula testacea.

Brixia testacea, Walk. Journ. Linn. Soc., Zool. x. p. 115 (1867).

Hab. Mysol.

Genus RHOTANA.

Rhotana, Walk. Journ. Linn. Soc., Zool. i. p. 160 (1857).

Type, *R. latipennis*, Walk.

Walker gave a wrong reference to his figure of the type. It should be pl. viii. fig. 1, and the type of *Paricana*, Walk., should be pl. viii. fig. 2.

Rhotana ramentosa, sp. n.

Body very pale testaceous, more or less greyishly tomentose; eyes black; legs stramineous; tegmina subhyaline, talc-like, more or less iridescent, the veins ochraceous, the series of transverse veins separating the apical areas, and most of the apical veins, broadly ochraceous, costal area pale, with two dark costal marginal spots, one before and one at apex, a small dark spot on costal margin above the series of transverse subapical veins, and another beneath these veins on inner margin, a similar small spot on apical margin, a transverse creamy-white spot in costal area beyond middle; wings pale hyaline; tegmina with the transverse subapical series of veins posteriorly curved and terminating near apex of clavus; apical areas short.

Long., excl. tegm., 3 mm.; exp. tegm. 12 mm.

Hab. Queensland (F. P. Dodd, Brit. Mus.).

Rhotana transversa, sp. n.

Body above ochraceous, beneath with legs paler; scutellum pale sanguineous; tegmina and wings subhyaline, talc-like, the veins more or less ochraceous; tegmina crossed by two narrow very pale fuscous transverse fasciæ, the first at about one third from base and not extending to the costal area, the second subapical, between is a third very short fascia, commencing on costal margin and only extending about one third across tegmen, a spot on costal area above the first fascia and a series of small spots on apical margin.

Allied to *R. ramentosa*, Dist., but to be easily separated from that species by the direction of the subapical transverse fascia, which follows the direction of the subapical transverse veins and is not curved inwardly to apex of clavus as in *R. ramentosa*, but terminates near posterior angle of the inner margin.

Long., excl. tegm., 2 mm.; exp. tegm. 9 mm.

Hab. Queensland (F. P. Dodd, Brit. Mus.).

Rhotana opalina, sp. n.

Body and legs pale ochraceous; disk of mesonotum, scutellum, and body beneath sanguineous; eyes black; tegmina subhyaline, talc-like, with opaline reflections, the venation ochraceous, a subapical undulating fascia, preceded by two short fasciæ, extending from costa to near middle of tegmen, the outer half of inner margin, and a series of small apical marginal spots very pale fuscous, a central edge-like spot to costal margin, edge of apical margin, and the apices of the upper apical veins white; wings pale hyaline; tegmina with the costal margin somewhat strongly sinuate beyond middle, the transverse series of subapical veins not posteriorly curved inwards, but nearly straightly transverse.

Long., excl. tegm., 2 mm.; exp. tegm. 9 mm.

Hab. Queensland (F. P. Dodd, Brit. Mus.).

Rhotana septemmaculata, sp. n.

Body and legs pale ochraceous, beneath a little paler than above; tegmina and wings pale hyaline, talc-like, the venation ochraceous; tegmina with a broad, outwardly angulate, pale ochraceous fascia at about one third from base, and two narrow, transverse, subapical, pale fuscous fasciæ, a cluster of about seven prominent black spots, which are somewhat arranged in two longitudinal series on inner apical area.

Long., excl. tegm., $2\frac{1}{2}$ mm.; exp. tegm. 9 mm.

Hab. Queensland (F. P. Dodd, Brit. Mus.).

Rhotana quadrimaculata, sp. n.

Body and legs ochraceous; tegmina pale shining ochraceous, with opaline reflections, the subapical transverse veins and the longitudinal veins to apical areas testaceous, a central apical marginal series of four black spots, each placed near the apex of a longitudinal vein; wings pale hyaline, with opaline lustre; the subapical series of transverse veins continued inwardly to apex of clavus.

Long., excl. tegm., $3\frac{1}{2}$ mm.; exp. tegm. 11 mm.

Hab. Queensland (*P. P. Dodd*, Brit. Mus.).

Kirkaldy (Rep. Exp. Stat. Haw. Plant. Assoc. pl. ix. p. 435) has described two species of *Rhotana* from Queensland. Of the first, *R. chrysonoe*, the British Museum possesses a single carded specimen, which appears to agree with the description and has now been doubtfully labelled as that species in the collection. The description of the second species is inadequate for identification without seeing a typical specimen.

Genus *NISIA*.

Nisia, Melich. Hom. Faun. Ceylon, p. 53 (1903); Dist. Faun. B. I., Rhynch. iii. pp. 296 & 309 (1906); Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. pt. ix. p. 427 (1906).

Kirkaldy writes: "This genus seems to be but slightly differentiated from *Kermesia*, Melich." On the contrary, the shape of the tegmina is quite divergent and the number of apical areas different, eight or nine in *Kermesia*, five in *Nisia*.

Genus *PHACONEURA*.

Phaconeura, Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. pt. ix. p. 427 (1906).

Type, *P. Froggatti*, Kirk.

It is necessary to point out that Kirkaldy, in the short description of his typical species, refers to pl. xxix. figs. 5-6, whereas it should be, as later on correctly stated in the "Description of Plates," pl. xxix. figs. 3-4.

FENUAHALA, gen. nov.

Vertex of head projecting a little in front of eyes, gradually narrowing to apex, its margins very strongly ridged; lateral areas of head compressed; face long and narrow, medially attenuated; clypeus almost as long as face; antennae inserted nearer base of clypeus than to eyes, the second joint long,

broad, and spatulate; apical joint of rostrum minute; pronotum very short, triangularly sinuate; mesonotum with its anterior margin strongly angulate, discally tricarinate; legs simple; tegmina about three times as long as broad, apically amplified, apical margin subtruncate, a subapical line formed by transverse veins separating a number of short apical areas, which commence at apex of costal margin and are continued to near end of clavus, where they are larger, a transverse vein beyond apex of radial area; wings extending to posterior angle of inner margin of tegmina, a prominent transverse vein beyond apex of radial area.

Type, *F. infuscata*, Dist.

This genus appears to have some affinity with *Heronax*, Kirk., but it is impossible to form a definite opinion. In the indications given of that genus Kirkaldy writes: "Allied to *Patara*, Westwood, but the venation is different." He, however, abstains from any description of the venation, nor does he mention the tegmina either as regards shape or breadth, or in relation to the wings, which are also not alluded to.

Fenuahala infuscata, sp. n.

Body above pale dull amber-brown, abdomen with darker and paler suffusions; body beneath a little paler than above;

Fig. 6.



Fenuahala infuscata, Dist.

legs stramineous, apices of femora and annulations to tibiae fuscous brown; tegmina pale hyaline, talc-like, the veins

fuscous brown, the same colour more or less suffuses the apical areas and irregularly appears on disk and more palely so in clavus, costal area with transverse fuscous spots; near centre of subapical margin is a prominent piceous spot; wings pale hyaline.

Long., excl. tegm., 3 mm.; exp. tegm. 16 mm.

Hab. Queensland; Kuranda (*F. P. Dodd*, Brit. Mus.).

Fenuahala rubrinervis, sp. n.

Body above fuscous, more or less greyishly tomentose, lateral margins of the vertex of head greyish white; antennæ, body beneath, and legs very pale ochraceous; eyes dark castaneous; tegmina greyish subhyaline, with dark fuscous markings, the principal greyish areas being costal and claval, three small discal spots, and three large irregular spots on apical area, three small fuscous spots in costal area beyond middle, veins to apical marginal areas sanguineous; wings very pale fuliginous with a slight opaline lustre, veins dark fuscous.

Long., excl. tegm., $2\frac{1}{2}$ mm.; exp. tegm. 14 mm.

Hab. Queensland; Cairns District (*F. P. Dodd*, Brit. Mus.).

Fenuahala juno, sp. n.

Body above piceous; body beneath and legs stramineous, lateral margins of sternum and lateral margin and apical area of abdomen piceous; tegmina piceous, the veins to apical marginal areas sanguineous, on under surface the costal margin beyond middle also sanguineous; wings very pale fuliginous, the veins darker.

Long., excl. tegm., 2 mm.; exp. tegm. 12 mm.

Hab. Queensland; Kuranda (*F. P. Dodd*, Brit. Mus.).

A small species, to be recognized by its very distinct coloration.

Fenuahala pallescens, sp. n.

Body above pale tawny, more or less greyishly tomentose; vertex of head cretaceous white; eyes piceous; body beneath and legs stramineous, apex of abdomen slightly testaceous; tegmina and wings subhyaline, with a slight opaline lustre, the veins very pale dull ochraceous; tegmina with the inner claval margin pale dull ochraceous.

Long., excl. tegm., $2\frac{1}{2}$ mm.; exp. tegm. $12\frac{1}{2}$ mm.

Hab. Queensland (*F. P. Dodd*, Brit. Mus.).

URABUNNA, gen. nov.

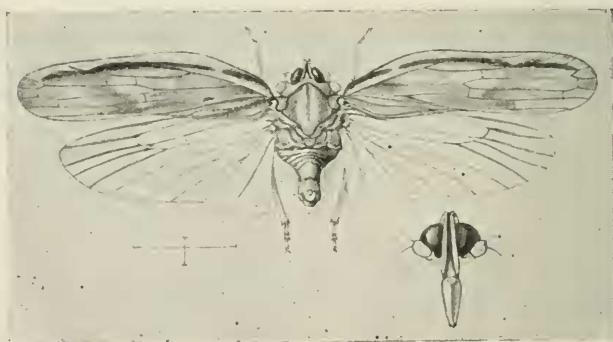
Vertex of head moderately projecting beyond eyes, narrowing to apex, which is angularly sinuate, margins strongly ridged; face narrow, lateral margins strongly ridged, a little widened posteriorly, longer than clypeus; rostrum with the apical joint minute; antennæ short, globose, inserted immediately beneath eyes; pronotum short, concavely sinuate; mesonotum tricarinate; legs simple; tegmina elongate, more than three times longer than broad, costal margin prominently arched a little beyond base, thence somewhat narrowed to apex, which is moderately rounded, two transverse veins near middle, one beyond clavus, another limiting penultimate apical area, and two or three subapical, which help to define a series of short apical areas continued round apex of costal margin; wings ample, much broader than tegmina, about reaching posterior angle of tegminal inner margin, the apical veins very pronounced.

Type, *U. lineata*, Dist.

Urabunna lineata, sp. n.

Body and legs dull ochraceous; abdomen somewhat greyishly tomentose; tegmina pale greyish subhyaline, much suffused with fuscous brown, costal area pale, traversed by a broken, longitudinal, piceous, linear fascia which almost

Fig. 7.

*Urabunna lineata*, Dist.

reaches apex; wings hyaline, the apical veins prominent and infusate.

Long., excl. tegm., 3 mm.; exp. tegm. 13-14 mm.

Hab. Queensland (F. P. Dodd, Brit. Mus.).

APPENDIX.

I have further examined Mr. Kirkaldy's paper describing Australian Fulgoridæ under the title of "Leaf-Hoppers and their Natural Enemies," published at Honolulu, in comparison with the descriptions of some Queensland Fulgoridæ which have appeared in these pages and elsewhere. The following notes are necessary.

Subfam. *EURYBRACHYDINÆ*.*Dardus obscurus*.

Dardus obscurus, Dist. Trans. Ent. Soc. Lond. 1892, p. 283.

Dardus immaculatus, Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. pt. ix. p. 446 (1906).

Hab. Queensland.

Subfam. *DICTYOPHARINÆ*.*Dictyophara bifasciata*.

Dictyophora bifasciata, Dist. Trans. Ent. Soc. Lond. 1892, p. 279.

Thanatodictya (Lucinda) lucindæ, Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. pt. ix. p. 392 (1906).

Hab. Queensland.

Dictyophara insignis.

Dictyophora insignis, Dist. Trans. Ent. Soc. Lond. 1892, p. 279.

Thanatodictya (Niculda) anadyomene, Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. pt. ix. p. 393 (1906).

Subfam. *CLIXINÆ*.

In the genus *Oliarus* Kirkaldy has described nine Australian species, and I have described two from Queensland, which, even by the aid of his tabular synopsis, I cannot decide as synonymic or otherwise. One thing, however, is certain, we have both used *lubra* as a specific name; I therefore alter mine.

Oliarus incerta, n. nom.

Oliarus lubra, Dist. Ann. & Mag. Nat. Hist. (7) xix. p. 282 (1907).

Subfam. *TROPIDUCHINÆ*.Genus *FICARASA*.

Ficarasa, Walk. Journ. Linn. Soc., Zool. i. p. 162 (1857).

Peltodictya, Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. pt. ix. p. 414 (1906).

The species I described as *F. australasice* (Ann. & Mag. Nat. Hist., ante, p. 287) is apparently closely allied to the one described by Kirkaldy as *P. kurandæ*, but nothing definitely can be decided from Kirkaldy's description, which is simply—"Grass-green. Eyes and genital segments partly brownish. Veins lightly and shortly piligerous"—and is applicable to almost any species in the genus.

Vanua vitiensis.

Vanua vitiensis, Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. pt. ix. p. 416, pl. xxvii. figs. 6-7 (1906).

It may be useful to point out that Kirkaldy, in his description, has referred this species to pl. xxvii. figs. 7-9; it should be figs. 6-7.

Subfam. *ACHILINÆ*.Genus *ANEIPO*.

Aneipo, Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. pt. ix. p. 425 (1906).

Tudea, Dist. Ann. & Mag. Nat. Hist. (7) xix. p. 290 (1907).

Aneipo diva.

Aneipo diva, Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. pt. ix. p. 425 (1906).

Tudea picturata, Dist. Ann. & Mag. Nat. Hist. (7) xix. p. 290 (1907).

Hab. Queensland.

I.—*Some new Species and Genera of Lamellicorn Coleoptera from the Indian Empire.* By GILBERT J. ARROW.

PART II.

Copridæ.

Cassolus humeralis, sp. n.

Rufo-piceus, capite prothoraceque rufo-cupreis elytrorumque humeris flavo-maculatis: breviter ovatus, convexus; capite crebre punctato, antice 4-dentato; prothorace paulo minus crebre punctato,